

CLAIMS

What is Claimed is:

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1. A method for encoding data for transmission in a communication system comprising the steps of:

partitioning a set of orthogonal codes into a first subset with a first number of members;

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partitioning a first plurality of data bits associated with a first transmission into first packets;

encoding the first plurality of data bits by assigning each first packet to a corresponding member of the first subset;

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partitioning a set of orthogonal codes into a second subset with a second number of members, the second number of members being different than the first number of members;

partitioning a second plurality of data bits associated with a second transmission into second packets; and,

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encoding the second plurality of data bits by assigning each second packet to a corresponding member of the second subset.

2. A method as defined in Claim 1, wherein the communication system comprises a CDMA communication system.

3. A method as defined in Claim 1, wherein the first plurality of data bits represents one or more of the group consisting of an audio signal, a video signal, and a data signal.

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4. A method as defined in Claim 1, wherein the second plurality of data bits represents one or more of the group consisting of an audio signal, a video signal, and a data signal.

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5. A method as defined in Claim 1, wherein the first plurality of data bits requires a lower power level than the second plurality of data bits and the first number of members is higher than the second number of members.

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6. A method as defined in Claim 1, wherein the first plurality of data bits requires a higher data rate than the second plurality of data bits and the first number of members is higher than the second number of members.

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7. A method as defined in Claim 1, wherein the first plurality of data bits requires a lower error rate than the second plurality of data bits and the first number of members is higher than the second number of members.

8. A method for encoding data for transmission in a communication system comprising the steps of:

partitioning a set of orthogonal codes into a subset with at least three members;

5 partitioning a plurality of data bits into packets; and,
encoding the plurality of data bits by assigning each packet to a corresponding member of the subset.

9. A method for increasing the terminal capacity of a CDMA communication system, comprising the steps of:

10 providing a set of orthogonal codes;
assigning at least three of the orthogonal codes in the set to a transmission; and,

15 decreasing power associated with the transmission thereby increasing the number of transmissions capable of utilizing the CDMA communication system at a given time.

10. A method for increasing the amount of data transmitted by a CDMA communication system, comprising the steps of:

20 providing a set of orthogonal codes;
assigning at least three of the orthogonal codes in the set to a transmission; and,

increasing a data rate associated with the transmission
thereby increasing the amount of data transmitted by the CDMA
communication system.

5 11. A method for decreasing the errors in a CDMA
communication system, comprising the steps of:
 providing a set of orthogonal codes;
 assigning at least three of the orthogonal codes in the set to
a transmission; and,
10 lengthening an error code associated with the transmission
thereby decreasing the number of errors in the CDMA communication
system.

15 12. An apparatus for encoding a signal associated with a
communication in a wireless communication system comprising:
 a memory retaining a set of orthogonal codes;
 a signal partitioner for partitioning the signal to be
transmitted into packets having a number of members;
 a code partitioner for assigning a subset of the set of
20 orthogonal codes to the communication, the subset including at least
three codes; and
 an encoder for mapping the packets of the signal to the
subset of the orthogonal codes.

13. An apparatus as defined in Claim 12, further comprising a transmitter for transmitting the encoded signal.

14. An apparatus as defined in Claim 12, wherein the signal represents one or more of the group consisting of an audio signal, a video signal, and a data signal.

15. An apparatus as defined in Claim 12, wherein the communication system comprises a CDMA communication system.

16. An apparatus as defined in Claim 12, wherein the signal partitioner comprises software performed by a microprocessor.

17. An apparatus as defined in Claim 12, wherein the signal partitioner comprises an integrated circuit.

18. An apparatus as defined in Claim 12, wherein the code partitioner comprises software performed by a microprocessor.

19. An apparatus as defined in Claim 12, wherein the code partitioner comprises an integrated circuit.

20. An apparatus as defined in Claim 12, wherein the encoder comprises software performed by a microprocessor.

21. An apparatus as defined in Claim 12, wherein the encoder comprises an integrated circuit.

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